



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,043	08/09/2001	John Franklin Ebersole	16805-00035	4734

7590 11/25/2003

Mirick O'Connell
DeMallie & Lougee, LLP
Suite 1700
100 Front Street
Worcester, MA 01608-1477

EXAMINER

MENGISTU, AMARE

ART UNIT	PAPER NUMBER
2673	

DATE MAILED: 11/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/927,043

Applicant(s)

EBERSOLE ET AL.

Examiner

Amare Mengistu

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10,13,14 and 17 is/are rejected.
- 7) ☒ Claim(s) 11,12,15,16 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “***stereoscopic view***”; must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 5,7,8,9,13,14 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Zhang (6,476,391)** in view of **Webster (5,274,405)**

As to claims 1-3,5,7,8,9,13, **Zhang** teaches an augmented reality display device comprising: a self contained breathing mask (fig.2)); a head mounted display (fig.1) and a head mounted camera (fig.1 (20), fig.2 (2a)); the head mounted display a see through (col.2, lines 12-13,); a mirror to see the camera view point (fig.1 (32)) which is mounted on a mounting plate (fig.2 (32a)); a headphone (fig.1 (46)). **Zhang** did not explicitly disclose that the head motion tracker coupled to the mask. However, the patent of

Art Unit: 2673

Webster is cited to teach that is well known for head motion tracker to be coupled to a mask (see, fig.4 (30); col.7, lines 1-6; col.13, lines 47-62).

Therefore, it would have been obvious to one skill in the art at the time of the invention was made to have been motivated to use the motion tracker system of **Webster** into the device of **Zhang**, because this is will provide a one to one correspondence between the head movement and the field of view perceived by the eye.

As to shaft to connect to the head phone to the SCBA; It would have been obvious to one skill in the art to recognize that head phone of **Zhang** must be connect to SCBA in order to be stable to the ear.

It would have been obvious to one skill in the art to make the shafts of the headphones stronger in order to protect from braking.

4. Claims 4, 6, 9,10, 13, 14 and 17 rejected under 35 U.S.C. 103(a) as being unpatentable over **Zhang** in view of **Webster (5,274,405)** further in view of **Arai et al (6,018,630)**.

5. As to claims 4,,6,10, 13,14 and 17 **Zhang** as modified by **Webster** teaches a head mounted display having a second camera to generate a stereoscopic view (col.3, lines 45-51, col.8, lines 55- col.9, lines 16). **Zhang** has failed to teaches a mirror to set the camera viewpoint to more closly concide with the wearer's eye position . **Arai et al** is cited to teach that it is conventional for a camera to have a mirror to set the viewpoint closely to the user's eye (see, Abstract;col.2, lines 26-34,49-63).

Therefore, it would have been obvious to one skill in the art at the time of the invention was made to have incorporated the use of mirror in camera as taught by **Arai et al** into the system of **Zhang**, since this will provide to position an image to near the observer's eye for a closely look of the image.

It is also well known to use some kind of protection around the mirror to prevent from damage.

Allowable Subject Matter

6. Claims 11,12,15,16 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: the cited prior art has failed to teach applicant's claimed invention "*a mirror is placed in a mechanical clamp mount*"; "*a mirror is mounted on a mountig plate*"; "*said opaque materials are sleected from the group of materials consisting of tape, foam, plastic, rubber, silicone, paint, and combination these materials*".

Response to Arguments

8. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2673

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amare Mengistu whose telephone number is (703) 305-4880. The examiner can normally be reached on M-F, T-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (703) 305-4938. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Art Unit: 2673

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

A handwritten signature in black ink, appearing to read "Amare Mengistu", with a stylized flourish at the end.

Amare Mengistu
Primary Examiner
Art Unit 2673

A.M
November 19, 2003